

IN THE CLAIMS:

Please amend Claims 38-41 as follows.

1.-37. (Cancelled)

38. (Currently Amended) An apparatus for generating additional data used to check whether an encoded digital image is changed or not, the apparatus comprising:

a calculation unit ~~adapted to~~which (a) ~~perform~~performs a predetermined calculation using the encoded digital image and confidential information, wherein the predetermined calculation does not include either using a hash function or encryption using the confidential information, and (b) ~~generate~~generates the additional data by applying a one-way function to a result of the predetermined calculation; and;

a recording unit ~~adapted to record~~which records both the encoded digital image and the additional data on a recording medium.

39. (Currently Amended) An apparatus for checking whether an encoded digital image is changed or not, the apparatus comprising:

an inputting unit ~~adapted to input~~which inputs both the encoded digital image and first additional data, wherein the first additional data is used to check whether the encoded digital image is changed or not; and

a calculation unit ~~adapted to~~which (a) ~~perform~~performs a predetermined calculation using the encoded digital image and confidential information, wherein the predetermined calculation does not include either using a hash function or encryption using the confidential information, (b) ~~generate~~generates second additional data by applying a one-way function to a result of the predetermined calculation, and (c) ~~check~~checks whether the encoded digital image is changed or not using the first additional data and the second additional data.

40. (Currently Amended) A method of generating additional data used to check whether an encoded digital image is changed or not, the method comprising the steps of:

performing a predetermined calculation using the encoded digital image and confidential information, wherein the predetermined calculation does not include either using a hash function or encryption using the confidential information;

generating the additional data by applying a one-way function to a result of the predetermined calculation; and

recording both the encoded digital image and the additional data on a recording medium.

41. (Currently Amended) A method of checking whether an encoded digital image is changed or not, the method comprising the steps of:

inputting both the encoded digital image and first additional data, wherein the first additional data is used to check whether the encoded digital image is changed or not;

performing a predetermined calculation using the encoded digital image and confidential information, wherein the predetermined calculation does not include either using a hash function or encryption using the confidential information;

generating second additional data by applying a one-way function to a result of the predetermined calculation; and

checking whether the encoded digital image is changed or not using the first additional data and the second additional data.

42. (Previously Presented) An apparatus according to claim 38, wherein the additional data is also used for checking integrity of the encoded digital image.

43. - 44. (Cancelled)

45. (Previously Presented) An apparatus according to claim 38, wherein the confidential information is information unique to the apparatus.

46. (Previously Presented) An apparatus according to claim 38, wherein the confidential information is information unique to an external apparatus connected to the apparatus.

47. (Previously Presented) An apparatus according to claim 38, wherein the confidential information includes first information unique to the apparatus, and second information unique to an external apparatus connected to the apparatus.

48. (Previously Presented) An apparatus according to claim 38, wherein the apparatus is an apparatus which operates as a digital camera.

49. (Previously Presented) An apparatus according to claim 38, wherein the apparatus is an apparatus which operates as a scanner.

50. (Previously Presented) An apparatus according to claim 39, wherein the first and second additional data is also used to check integrity of the encoded digital image.

51. - 52. (Cancelled)

53. (Previously Presented) An apparatus according to claim 39, wherein the confidential information is information unique to an apparatus which generates the first additional information.

54. (Previously Presented) An apparatus according to claim 39, wherein the confidential information is information unique to an external apparatus connected to an apparatus which generates the first additional information.

55. (Previously Presented) An apparatus according to claim 39, wherein the confidential information includes first information unique to an apparatus which generates the first additional information, and second information unique to an external apparatus connected to that apparatus.

56. (Previously Presented) An apparatus according to claim 39, wherein the encoded digital image and additional data are generated in an apparatus which operates as a digital camera.

57. (Previously Presented) An apparatus according to claim 39, wherein the encoded digital image and additional data are generated in an apparatus which operates as a scanner.

58. (Previously Presented) A method according to claim 40, wherein the additional data is also used to check integrity of the encoded digital image.

59 - 60 (Cancelled)

61. (Previously Presented) A method according to claim 40, wherein the confidential information is information unique to an apparatus using the method.

62. (Previously Presented) A method according to claim 40, wherein the confidential information is information unique to an external apparatus connected to an apparatus using the method.

63. (Previously Presented) A method according to claim 40, wherein the confidential information includes first information unique to an apparatus using the method, and second information unique to an external apparatus connected to that apparatus.

64. (Previously Presented) A method according to claim 40, wherein the method can operate in a digital camera.

65. (Previously Presented) A method according to claim 40, wherein the method can operate in a scanner.

66. (Previously Presented) A method according to claim 41, wherein the first and second additional data is also used for checking integrity of the encoded digital image.

67 - 68 (Cancelled)

69. (Previously Presented) A method according to claim 41, wherein the confidential information is information unique to an apparatus which generates the first additional information.

70. (Previously Presented) A method according to claim 41, wherein the confidential information is information unique to an external apparatus connected to an apparatus which generates the first additional information.

71. (Previously Presented) A method according to claim 41, wherein the confidential information includes first information unique to an apparatus which generates the first additional information, and second information unique to an external apparatus connected to that apparatus.

72. (Previously Presented) A method according to claim 41, wherein the encoded digital image and the additional data are generated in an apparatus which operates as a digital camera.

73. (Previously Presented) A method according to claim 41, wherein the encoded digital image and additional data generated in an apparatus which operates as a scanner.

74. (Previously Presented) An apparatus according to claim 38, wherein the predetermined calculation includes an exclusive-OR operation.

75. (Previously Presented) An apparatus according to claim 39, wherein the predetermined calculation includes an exclusive-OR operation.

76. (Previously Presented) A method according to claim 40, wherein the predetermined calculation includes an exclusive-OR operation.

77. (Previously Presented) A method according to claim 41, wherein the predetermined calculation includes an exclusive-OR operation.